

Chapter 1 Test Review

Section 1.1 – Variable and Relationships

Key Terms: Variable                      Independent variable                      Dependant variable  
Controlled variable                      Controlled experiment

Concepts: Identify variable (Dependant, Independent)  
Mind map  
Create tables to show relationships

Section 1.2 – Measuring

Key Terms: Accuracy                      Precision                      Significant digits

Concepts: Appropriate number of significant digits (when adding/subtracting, when multiplying/dividing)  
Finding Area ( $A = \text{length} \times \text{width}$  (divide by 2 when it's a triangle))  
Finding Perimeter ( $P = (\text{length} + \text{width}) \times 2$ )  
Measuring (how to use a ruler)

Section 1.3 – Describing Data

Key Terms: Average (3 measures of central tendencies: mean, median, mode)  
Outliers, Distribution, Stem-and-Leaf Plot, Range,, Box-and-Whisker Plot, Lower Extreme, Upper Extreme  
Lower Quartile, Upper Quartile, Histogram, Bin, Frequency Table

Concepts: Calculate Mean, Median, and Mode  
Construct a Stem-and-Leaf Plot  
Construct a Box-and-Whisker Plot (know how to label them and calculate each value needed)  
Construct a Frequency Table (no more than 10 bins) and Histogram

1.4 – Defining Data Spread

Key Terms: Dispersion                      Standard Deviation

Concepts: Calculate Standard Deviation (read graphs according to standard deviation, create new sets of data to maintain or change standard deviation)

1.5 – Large Distributions and the Normal Curve

Key Terms: Random                      Frequency Polygon                      Normal Distribution

Concepts: Create Frequency Polygon  
Normal Distribution Graphs (1 SD away = 68%, 2 SD away = 95%)

1.6 – Using Data to Predict

Key Terms: Scatter Plot                      Line of Best Fit                      Interpolate                      Extrapolate

Concepts: Create a Scatter Plot  
Make Line of Best Fit

Practice:

- 1. Page 5, #5
- 2. Create a mind map of a bowler and what may affect their performance.
- 3. Page 52, #2 a, d
- 4. Page 52, #3
- 5. Page 53, #5
- 6. Page 11, #12

Below are the bowling scores from our trip to the bowling alley. Both math classes are included. Use this data to answer questions 8-

62	46	94	72	60	55	60	66	42	79	84
76	71	52	72	55	71	71	66	61	76	87
66	64	64	63	75	64	64	92	76	68	62
70	85	87	59	83	82	38	77	61	64	69
83	66	63								

- 7. Find the mean, median, and mode.
- 8. What, if any, are the outliers?
- 9. What is the range?
- 10. Create a Box-and-Whisker Plot.
- 11. Create a Histogram and draw a frequency polygon.
- 12. Is there a normal distribution?
- 13. Calculate the Standard Deviation. Where does 68% of the data fall? Where does 95% of the data fall?
- 14. Page 54, #17